Connecting the dots: local government infrastructure and water

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Key Points

1. Canada has an infrastructure deficit
   ▫ Includes water infrastructure
   ▫ Particular challenge to rural regions

2. Water cuts across jurisdictions
   ▫ Human health
   ▫ Environmental services
   ▫ Economic development

3. Current approach to drinking water infrastructure is undesirable
   ▫ “There has got to be a better way to do this”
# Snapshot: Kootenays

| **Key provincial ministries** | Health (Interior Health Authority)  
Community, Sport, and Cultural Development  
Environment (Water Stewardship Division)  
Forests, Lands, Natural Resource Operations  
BC Hydro |
|-------------------------------|----------------------------------------------------------------------------------|
| **Local government** | Municipality  
Regional Districts |
| **Key policies** | Drinking Water Protection Act  
Water Act  
Environmental Management Act |
| **Key programs** | Gas Tax Fund  
Columbia Bain Trust Water Smart |
| **Public system snapshot** | ~53 systems  
Range of treatment technology  
Distribution deterioration overshadowed by treatment  
7 systems on water advisory |
| **Issues** | Capacity (money, people, time), culture, asset management, governance, integration, place and context |
### Snapshot: Kittiwake

| **Key provincial ministries** | Department of the Environment and Conservation  
|                             | Department of Municipal Affairs  
|                             | Department of Health and Community Services  
|                             | Department of Natural Resources  
|                             | Department of Service NL  |

| **Local government** | Municipal governments  
|                     | Local services districts  |

| **Key policies** | Water Resources Act  
|                 | Environmental Protection Act  
|                 | Policy for Drinking Water Quality Monitoring and Reporting for Public Water Supplies  
|                 | Municipalities Act  |

| **Key programs** | The Multi-Barrier Strategic Action Plan  
|                 | Federal-Provincial-Municipal Infrastructure Canada program  
|                 | Operator Education, Training, and Certification program  |

| **Public system snapshot** | 41 public water systems  
|                           | Both distribution and treatment are of concern  
|                           | Range of treatment technology  
|                           | 15 systems on water advisory  |

| **Issues** | Persistence of BWA’s, required infrastructure upgrades, over chlorination, source water concerns  |
Summary - Current Issues

1. Physical infrastructure
   ▫ Distribution and treatment systems
   ▫ Change in situation

2. Operations
   ▫ Fire fighting

3. Approach
   ▫ Overlapping and conflicting jurisdictions
   ▫ Intent vs. execution
   ▫ Path dependence
   ▫ Lack of ...
A (new) regional approach?

• Why focus on the regional level?

• What is New Regionalism?

• Why use a development theory to deal with water infrastructure?
Key Elements - part 1

Governance

Integration

Placed - Based

Innovation and Knowledge Flows

Rural - Urban Relationships

Source: Ferreyra, De Loë, & Kreutzwiser, 2008; Grigg, 2012; Pahl-Wostl, Gupta, & Petry, 2008; Peterson, Mcalpine, Ward, & Rayner, 2007; Reimer, 2009
Key Elements - part 2

Sustainable Infrastructure

Resilience

Best Existing Watershed Approaches
What will the approach look like?

- “... large numbers of independent governments (voluntarily) cooperating through multiple, overlapping webs of inter-local agreements.” Savitch & Vogel, 2000. Pg. 164.
Conclusions

- Need for change
- Infrastructure deficit as an opportunity
- Application of existing knowledge

Next Steps

3) Refinement
4) Focus groups
5) Analysis
6) Refinement
7) Feasibility
8) Analysis
9) Results and recommendations
Thank you

Questions?

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